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TITLE

MILLIMETER-WAVE PLANAR

ANTENNA

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ABSTRACT: PROBLEM TO BE SOLVED: To reduce cross polarization, due to the electrical coupling with improvement of the characteristic and to secure a coplanar constitution for both strip antenna and strip line for facilitating the production and the cost reduction of a planar antenna by forming a slit having an angle to eliminate the radiation received from a feeder line at the center part of a microstrip antenna.

> SOLUTION: A microstrip antenna 4 has a slit 9 which has an angle different from the polarized wave that is obtained by a feeder line microstrip 6. The direction 13 of the polarized wave can be changed by the control of the angle of the slit 9. The angle of the slit 9 is controlled in the direction, where the polarized wave radiated from the feeder line 6 is eliminated. The direction 13 is controlled, and the influence of the polarized wave radiated from the line 6 is reduced to secure a desired polarized wave. As a result, it is possible to reduce cross polarization, to improve the antenna radiation efficiency and also to facilitate the designing and production of a plane antenna without troublesome changes required for the feeding position, regardless of the dielectric constant and the thickness of a substrate.

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